

WHAT IS CLAIMED IS:

1. A composition comprising biologically active, substantially homogeneous Wnt protein.
2. The composition according to Claim 1, wherein said Wnt protein is present at a concentration of at least about 10 µg/ml.
3. The composition according to Claim 1, wherein said Wnt protein comprises a lipid moiety.
4. The composition according to Claim 1, wherein said Wnt protein is a mammalian protein.
5. The composition according to Claim 4, wherein said Wnt protein is a human protein.
6. The use of a composition according to Claim 1, in a method of enhancing stem cell self-renewal and/or proliferation.
7. A method of isolating a Wnt protein to produce a substantially homogeneous composition, the method comprising:
separating a Wnt protein by affinity chromatography in the presence of a detergent sufficient to maintain solubility of said Wnt protein.
8. The method according to Claim 7, wherein said detergent is a non-ionic or zwitterionic detergent.
9. The method according to Claim 8, wherein said affinity chromatography is dye ligand affinity chromatography.
10. The method according to Claim 9, further comprising a step of gel exclusion chromatography.

11. The method according to Claim 10, further comprising a cation exchange chromatography separation.

12. A method of inhibiting Wnt mediated signaling, the method comprising inhibiting the palmitoylation of Wnt.